THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID NEFF

Appeal No. 96-3851
Application No. 08/341,849[1]

ON BRIEF

Before THOMAS, HAIRSTON, and GROSS, Administrative Patent Judges.

GROSS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 4 and 17 through 40, which are all of the claims pending in this application.

[1] Application for patent filed November 18, 1994. According to appellant, the application is a continuation of Application 07/954,785, filed September 30, 1992, now abandoned.

The appellant's invention relates to a color printer and printing method in which both black and color ink pens are used.

More specifically, a printer server defines color selection codes for each pixel, encodes the defined color selection codes, and communicates the codes to the printer such that true black and processed black both can be used for the same image and color and black ink both can be printed at the same pixel. Claim 4 is illustrative of the claimed invention, and it reads as follows:

> 4. A method of using a computer printer server to generate color selection data for an inkjet printer having black ink and color ink pens capable of printing both black ink and color ink at a given pixel, the method comprising the steps of:
>
> the server defining a color selection code for each pixel of an image to be printed, with the color selection code designating at least one of the black and color pens for each printed pixel of the image; and
>
> the server encoding the defined color selection code for each pixel of the image for communication to the printer, including the step of encoding of color selection codes for any said given pixel requiring printing of both black ink and color ink.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Sugiura et al. (Sugiura)	4,683,492	Jul. 28, 1987
Vaughn et al. (Vaughn)	5,168,552 (Filed Oct. 29, 1991)	Dec. 01, 1992
Deutsch et al. (Deutsch)	5,226,175 (Filed Mar. 26, 1991)	Jul. 06, 1993

Claims 4 and 17 through 40 stand rejected under 35 U.S.C. § 103 as being unpatentable over Vaughn in view of Sugiura and Deutsch.

Reference is made to the Examiner's Answer (Paper No. 20, mailed April 4, 1996) for the examiner's complete reasoning in support of the rejections, and to the appellant's Brief (Paper No. 19, filed December 29, 1995) for the appellant's arguments thereagainst.

OPINION

As a preliminary matter, we note that appellant indicates on page 4 of the Brief (with reasons as set forth in 37 CFR § 1.192(c)(7) and (c)(8)) that the claims do not stand or

fall together. We agree that the claims fall into the following two groups: (1) claims 4, 17 through 29, and 32 through 40 and (2) claims 30 through 31. We will treat claim 4 as representative of group 1 and claim 30 as representative of group 2.

We have carefully considered the claims, the applied prior art references, and the respective positions articulated by the appellant and the examiner. As a consequence of our review, we will reverse the obviousness rejection of claims 4, 17 through 29, and 32 through 40 and affirm the obviousness rejection of claims 30 and 31.

Claim 4 requires the capability "of printing both black ink and color ink at a given pixel" and "encoding of color selection

codes for any said given pixel requiring printing of both black ink and color ink."[2] On the other hand, in the abstract Vaughn describes the invention as "a method of processing color bit-map graphics data in a four-color liquid-ink printing system, so as to maximize use of black ink while maintaining a minimum spacing between black and color inks" (underlining added for emphasis). In other words, the primary purpose of Vaughn is to separate black ink and color ink. Thus, Vaughn specifically teaches not to print black ink and color ink anywhere near each other, and therefore is not capable of printing both black ink and color ink at the same pixel, as recited in claim 4.

[2] The use of both color and black inks at the same pixel would appear to be anomalous with appellant's stated advantages (Specification, pages 5-6) that "by color separating the data into four-color raster planes, the true black (K) ink dot data is all that need be sent during the printing of all true black image rasters, at potentially substantially reduced overhead" and (Specification, page 9) that "for ink-jet printers providing for true black (K) and tri-color (CMY or RGB) ink printing wherein black and colored ink drops cannot be deposited in a closely adjacent relationship without excessive black-to-color bleeding, the invented method and system provide a unique palette design, coding and selection that enables a printer server to utilize either true black or process black for black swath printing . . . mak[ing] it possible for a printer server to optimize print quality without significant overhead."

Deutsch deals with a method for forming an analytic model of an image, and has nothing to do with inkjet printing a color

image. Sugiura is concerned with determining a recording area factor for each color, including black, and does not teach why one of ordinary skill in the art would want to print both black and color at the same pixel in a device such as Vaughn's. In fact, Sugiura states (column 13, lines 52-53) that "[b]lack ink k must be printed so as not to overlap inks of other colors in low density images." Also, Vaughn shows black separate from all colors in each figure depicting area factors of color and black inks (see Figures 21, 29, 31, and 35). Accordingly, neither Deutsch nor Sugiura overcomes the deficiencies of Vaughn. Therefore, we cannot sustain the obviousness rejection of claim 4 and its dependents, claims 17 through 29. Further, since claim 32 includes the same limitation of being capable of printing both black and color ink at the same pixel, we also will reverse the obviousness rejection of claim 32 and its dependents, claims 33 through 40.

As to claim 30, Vaughn discloses in the abstract "a four-color liquid-ink printing system, so as to maximize use of black ink while maintaining a minimum spacing between black and color inks." Further, "[t]he input data is stored in CMY bitmap color planes" and

> data representing composite black is moved from the color planes into a K plane (60) for printing by a true black pen. The data is examined (66) to detect any
>
> black ink within the minimum spacing from color ink. . . . Where a black block is detected adjacent a color block, the spacing violation is corrected by moving the corresponding block of data from the K plane back into the color planes(166) for printing as composite black.

In other words, Vaughn discloses printing both true black, using black ink, and composite black, using color ink, for different parts of the same image. Further, as indicated by the discussion of the CMY and K bitmap color planes and by the tables of Figures 8A and 8B, wherein 0's and 1's are used to show whether or not a pixel has a color ink or black ink, Vaughn discloses encoding color selection codes.

Appellant admits in the Declaration dated July 14, 1995, in item 7 that in Vaughn (as one of the five patents discussed) "an encoded image [is] received from a host

computer, within which resides a printer server." Then in item 14 of the same Declaration, appellant states that "[t]he Vaughn process may take place in either the server or the printer." Accordingly, the coding takes place in the printer server. Thus, Vaughn would seem to anticipate claims 30 and 31. Although the examiner rejected the claims under 35 U.S.C. § 103 using additional references to show a server, since anticipation is the epitome of obviousness (See In re Emert, 124 F.3d 1458, 1462, 44 USPQ2d 1149, 1153 (Fed. Cir. 1997), citing Structural Rubber Prods. Co. v. Park Rubber Co., 749 F.2d 707, 716, 223 USPQ 1264, 1271 (Fed. Cir. 1984) ("anticipation is the epitome of obviousness")), we will sustain the obviousness rejection of claims 30 and 31.

CONCLUSION

The decision of the examiner rejecting claims 4, 17 through 29, and 32 through 40 under 35 U.S.C. § 103 is reversed and the decision of the examiner rejecting claims 30 and 31 affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

JAMES D. THOMAS Administrative Patent Judge	)
KENNETH W. HAIRSTON Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
ANITA PELLMAN GROSS Administrative Patent Judge	)

vsh

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